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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/612,755	07/03/2003	Jim Hranica	HON-14852	5555
27504	7590	12/23/2005	EXAMINER	
RANKIN, HILL, PORTER & CLARK LLP 4080 ERIE STREET WILLOUGHBY, OH 44094-7836			DEUBLE, MARK A	
			ART UNIT	PAPER NUMBER
			3651	
DATE MAILED: 12/23/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/612,755

Applicant(s)

HRANICA ET AL.

Examiner

Mark A. Deuble

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-17 is/are allowed.
- 6) ☒ Claim(s) 18-21 and 26 is/are rejected.
- 7) ☒ Claim(s) 22-25 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 18-21 and 26 are rejected under 35 U.S.C. 103(a) as obvious over Conboy et al. (U.S. Patent No. 6,662,076), as in the office action of July 26, 2005 which is repeated below.

Conboy et al. discloses a method of supplying workpieces to a plurality of workstation assemblies 128 in a factory system 130 with a control broker 130. Each workstation assembly includes a variety of storage tools, such as stockers and work-in-process racks, and a variety of processing tools which form the actual workstations. The control broker receives call signals in the form of move requests from all the workstation assemblies of the factory system in the form of move requests (col. 3, ln. 55-56) and it also receives error signals from a database 230 indicating error conditions such as a value indicating that a factory tool is down or inoperable (col. 4, ln. 41-50). While the specification states that the error conditions may be provided in a number of different manners, the error conditions must be sensed at the factory tool of a given workstation assembly. It would have been obvious to one of ordinary skill in the art to transmit the error signals from the workstation assemblies because that is where the errors originate and transmitting the signals from elsewhere would unnecessarily complicate the invention. The control broker directs an automated material handling system (AHMS) to supply the workstation assemblies that have transmitted a call signal from an input area formed by the storage tools.

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This is done by placing the move request call signals into an active queue that operates in a first-in-first-out fashion (col. 5, ln. 4-6) so that the workpieces are supplied to the workstations based on the chronological order of the receipt of the move request call signals such that the workstation that transmits a first received one of the call signals is supplied with a workpiece first. As this is done, the control broker will check for any error signals associated with a particular workstation tool and may change the destination workstation or cancel the request so that workstations with error signals are not supplied with workpieces. After a workpiece has been moved to a workstation, a confirmation is sent by the workstation and the call signal is removed from the queue so that the next oldest call signal is handled next. Thus, Conboy et al. discloses all the steps required by claims 18-19.

The workstation assemblies 128 may be viewed as being divided into a plurality of zones that each has an equipment interface 126 associated therewith. This means that when the workpieces are supplied to a first processing tool workstation in a first zone in response to a call signal according to the steps described above, they are moved from a first input area formed by a storage tool to the first processing tool workstation associated with the oldest call signal that has not been responded and that is not associated with an error signal. After the workpiece is worked on in the first zone, the workpiece will be moved to a second input area of a downstream workstation in a second zone. The movement of the workpiece through the downstream zones is determined by call signals from downstream workstations in the fashion described above. This means that the workpieces are moved from the second input area to the second a second processing tool workstations processing tool workstation associated with the oldest call signal that has not been responded and that is not associated with an error signal. After the workpiece

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is worked on in the second zone, it is moved to a third input area. This process is repeated until the workpiece is completed. Thus, Conboy et al. discloses all the steps required by claim 21.

While Conboy et al. states that the disclosed method has particular use in a semiconductor fabrication facility; it also includes a more general teaching that the method may be used advantageously in any type of manufacturing facility. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to employ the method of Conboy in an automotive crankshaft manufacturing facility. When this is done, Conboy et al would have all the steps required by claim 20.

The applicant's representative argues that Conboy et al. does not disclose or teach a method of supplying workpieces to a plurality of workstations that includes the steps of "receiving all call and error signals transmitted from the workstations", and "supplying each of the workstations that transmits a call signal" wherein the supplying step is performed "such that the workpieces are supplied to the workstations based on the chronological order of the receipt of the call signals from the workstations" as required by claims 18, 19, and 21 because the factory system transmits the signals rather than the workstations. This argument is not persuasive.

While it is true that the error and call signals originate in the factory system, and while Fig. 1 schematically indicates that the factory system is separate from the AHMS and the workstations 128, the sensor and control circuitry attached to the factory tools to allow them to communicate with the factory system may be considered a part of the factory system. Furthermore, because the availability of a workstation that generates a move request and the error conditions at the workstations must be sensed at the workstation, it would have been obvious to one of ordinary

skill in the art to transmit signals from the sensors at the workstations. The obviousness of this was not challenged by the applicant's representative.

Allowable Subject Matter

3. Claims 1-17 are allowed.
4. Claims 22-25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark A. Deuble whose telephone number is (571) 272-6912. The examiner can normally be reached on Monday through Friday except for alternate Fridays.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene O. Crawford can be reached on (571) 272-6911. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

md


GENE O. CRAWFORD
SUPERVISORY PATENT EXAMINER